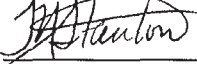
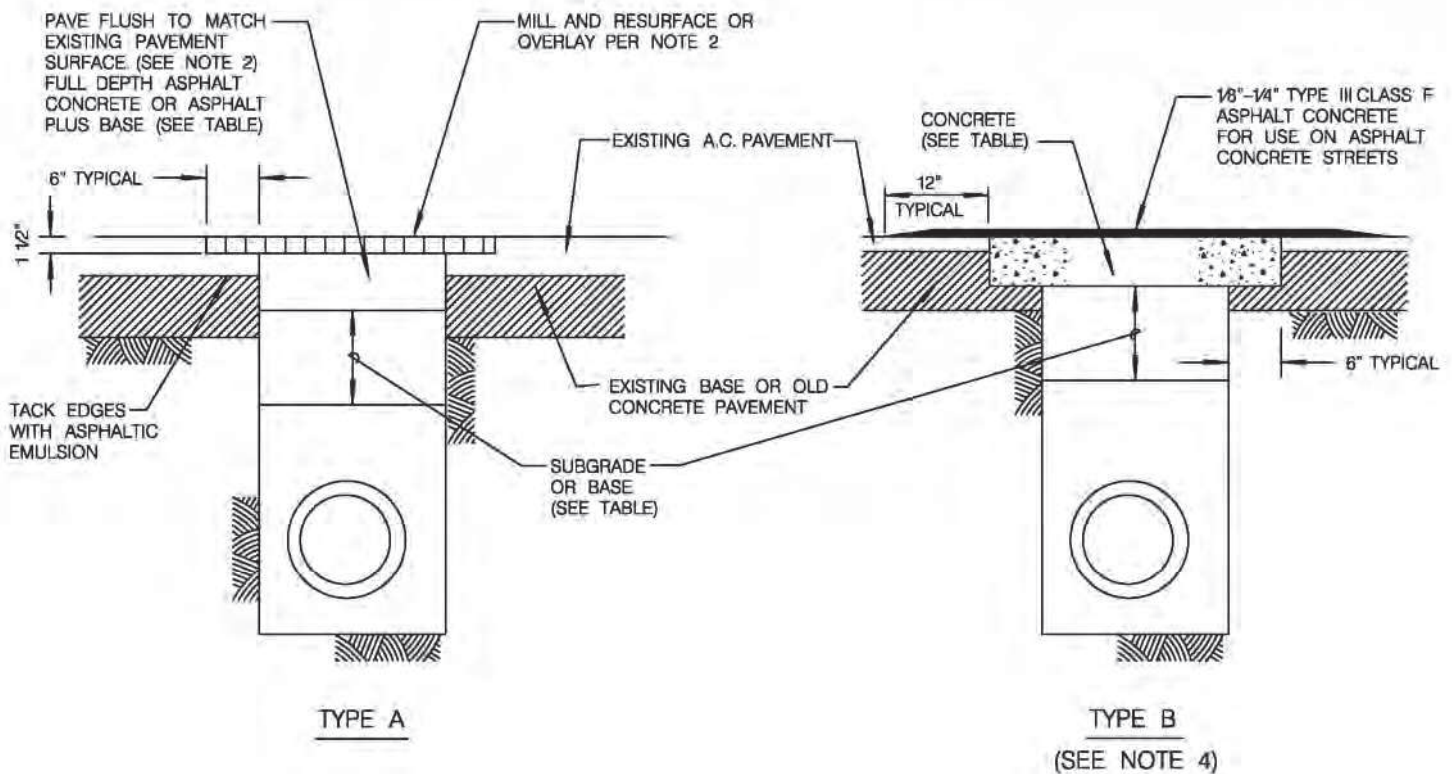


NOTES:

- 1) REFER TO AGENCY SPECIFICATIONS WHERE APPLICABLE
- 2) STAMP OR CHISEL A 50mm (2") HIGH 'W' IN CURB FACE TO IDENTIFY POTABLE WATER SERVICE LOCATION
- 3) STAMP OR CHISEL A 50mm (2") HIGH 'RW' IN CURB FACE TO IDENTIFY RECYCLED WATER SERVICE LOCATION
- 4) METER BOXES ARE NOT TO BE INSTALLED IN DRIVEWAYS, SIDEWALKS OR WITHIN PAVED ROADWAYS
- 5) MULTIPLE METER BOXES SHALL BE INSTALLED WITH A MINIMUM OF 225mm (9") BETWEEN BOXES
- 6) METER BOX SHALL BE INSTALLED 225mm (9") FROM THE BACK OF BERM, CURB, OR SIDEWALK (TYP)
- 7) AN EASEMENT MAY BE NEEDED DEPENDING ON LOCATION OF METER BOX
- 8) METER BOXES INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN AGENCY'S SPECIFICATIONS
- 9) MATERIALS SHALL BE SELECTED FROM THE AGENCY'S APPROVED MATERIALS LIST

Revision	By	Approved	Date	SAN DIEGO REGIONAL STANDARD DRAWING	RECOMMENDED BY THE SAN DIEGO REGIONAL STANDARDS COMMITTEE
ORIGINAL		Kercheval	12/75		
Add Metric		T. Stanton	03/03	METER BOX LOCATIONS FOR WATER AND RECYCLED WATER APPURTENANCES	 10/28/2004 Chairperson R.C.E. 19246 Date
Replaced W-15		J. Tomasulo	10/04		
					DRAWING NUMBER WS-03

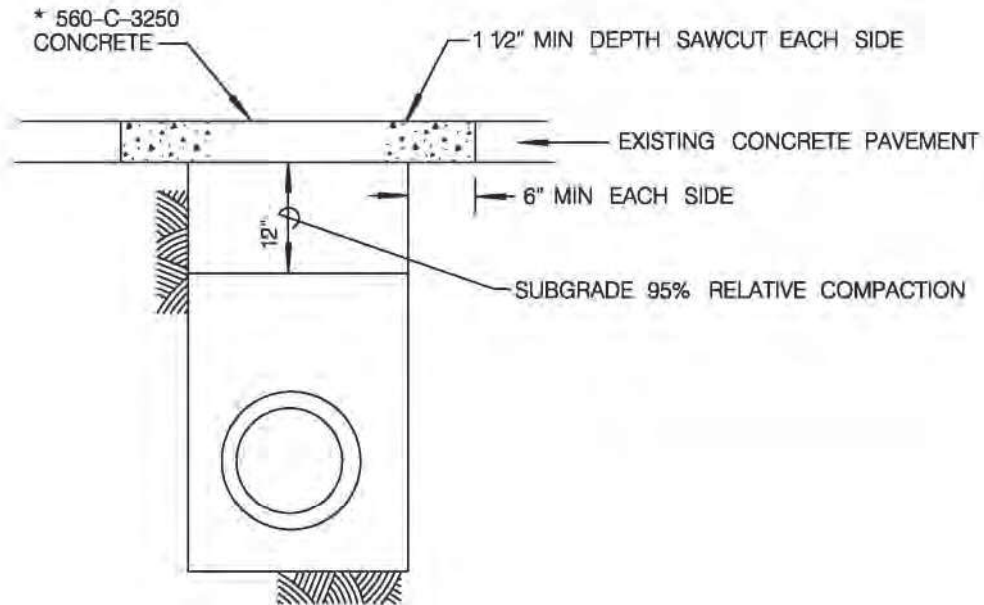


	TYPE A		TYPE B
	ASPHALT	ASPHALT PLUS BASE	CONCRETE
MIX DESIGN	3/4" TYPE III CLASS B3	3/4" TYPE III CLASS B3 PLUS CLASS II BASE	560-C-3250
ALLEYS	8.0"	ASPHALT THICKNESS TO EQUAL	5.5"
LOCAL THROUGH 4 LANE COLLECTORS	10.0"	EXISTING PLUS 1", MIN 4" TO MAX 9"	7.0"
MAJOR	12.0"	COMBINED ASPHALT PLUS BASE 18" MIN.	9.0"

NOTES:

1. ANY STREET TRENCH 7 FEET IN WIDTH OR GREATER AND LONGER THAN 100 FEET IN OVERALL LENGTH SHALL BE RECONSTRUCTED WITH THE PAVEMENT SECTION FOR THE STREET CLASSIFICATION PER SCHEDULE "J" (SDG-113).
2. ASPHALT TRENCH CAPS IN STREETS NOT RECEIVING A FULL WIDTH OVERLAY PRIOR TO ACCEPTANCE SHALL BE MILLED AS SHOWN AND RESURFACED WITH 1/2" TYPE III CLASS C2 ASPHALT NO LESS THAN 30 DAYS AFTER INITIAL ASPHALT PLACEMENT.
3. 560-C-3250 CONCRETE TREATED WITH A MINIMUM 2% CALCIUM CHLORIDE SOLUTION IN ACCORDANCE WITH 201-1 OR 650-CW-4000 (W/O CC) CONCRETE MAY BE OPENED TO TRAFFIC 3 DAYS AFTER IT IS PLACED. 650-CW-4000 CONCRETE TREATED IN SAME MANNER (WCC) MAY BE OPENED TO TRAFFIC 24 HOURS AFTER IT IS PLACED. CONCRETE SPECIFIED BY ALTERNATE CLASS OR OTHERWISE CONTAINING FLY ASH IS NOT ALLOWED.
4. USE TYPE "A" UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY ENGINEER.

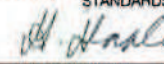
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL		J.P. CASEY	12/4/89		
UPDATED	KA	J. NAGELVOORT	01/12	TRENCH RESURFACING FOR ASPHALT CONCRETE SURFACED STREETS	1/31/2012
					COORDINATOR R.C.E. 65271 DATE
					DRAWING NUMBER SDG-107

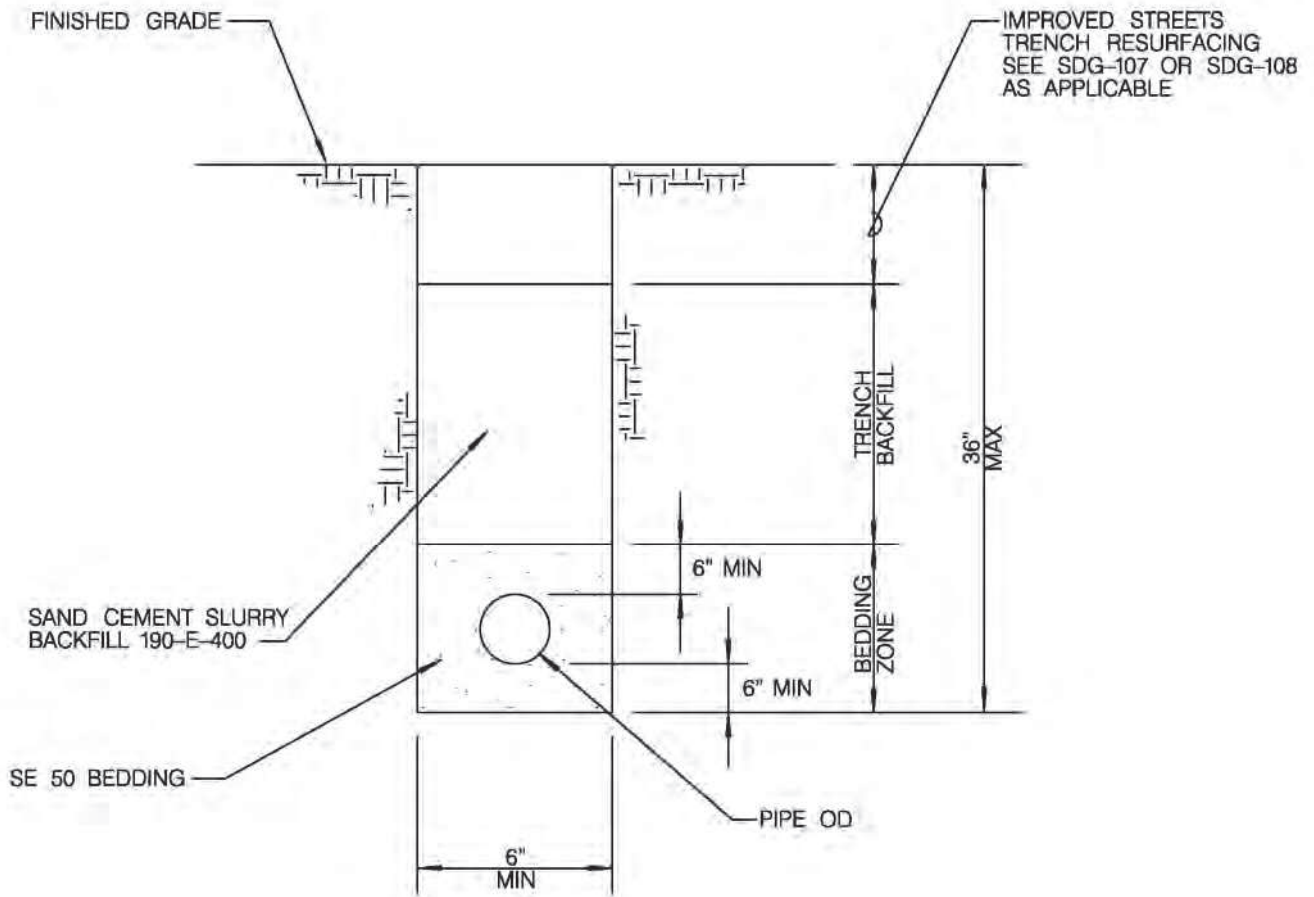


NOTES

1. EXISTING CONCRETE PAVEMENT SHALL BE REMOVED.
2. PRIOR TO PLACING CONCRETE, PAVEMENT EDGES SHALL BE TRIMMED TO NEAT HORIZONTAL AND VERTICAL LINES.
3. UNLESS OTHERWISE SPECIFIED, CONCRETE TRENCH COVER SHALL BE A MINIMUM OF 5 1/2" FOR ALLEYS, 7" FOR LOCAL THROUGH FOUR LANE COLLECTOR STREETS AND 9" THICK FOR ALL MAJOR OR GREATER STREET CLASSIFICATIONS.
4. ANY STREET TRENCH 7' IN WIDTH OR GREATER AND LONGER THAN 100' IN LENGTH SHALL BE RECONSTRUCTED WITH THE PAVEMENT SECTION FOR THE STREET CLASSIFICATION PER SCHEDULE "J" (SDG-113). STREET TRENCH SECTIONS 7' IN WIDTH OR GREATER BUT LESS THAN 100' IN OVERALL LENGTH SHALL BE RESURFACED TO A THICKNESS OF 1" GREATER THAN REQUIRED BY NOTE 3 ABOVE.

- * IN FOUR-LANE MAJOR OR GREATER STREETS, AN APPROVED SET ACCELERATING ADMIXTURE SUCH AS CALCIUM CHLORIDE, SHALL BE USED IN THE CONCRETE.

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL		J. CASEY	01/89		
UPDATED	KA	J. NAGELVOORT	01/12	TRENCH RESURFACING FOR PCC SURFACED STREETS	 COORDINATOR R.C.E. 65271 DATE 1/31/2012
					DRAWING
					NUMBER
					SDG-108

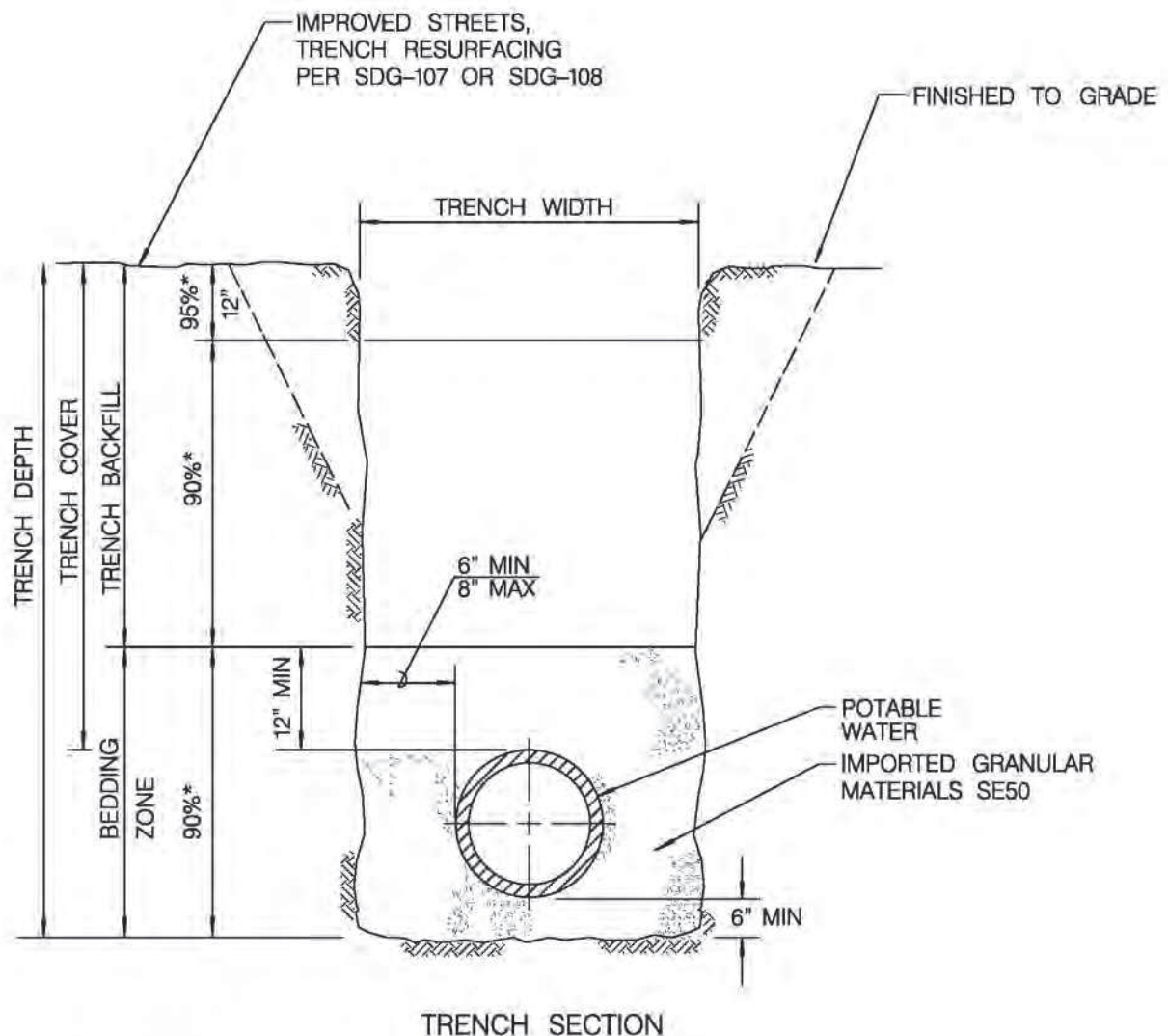


TRENCH SECTION

NOTES:

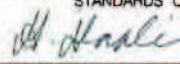
1. THE PROPOSED WATER SERVICE SHALL BE SECURED IN CENTER OF THE TRENCH.
2. SAND CEMENT SLURRY BACKFILL SHALL BE THOROUGHLY CONSOLIDATED TO ENCASE CONDUITS. TAMPERS OR VIBRATORS SHALL BE USED.
3. EXISTING PAVEMENT WILL NOT REQUIRE SAW CUTTING WHEN USING ROCKWHEEL FOR EXCAVATION EXCEPT WHEN THE EXISTING PAVEMENT IS CONCRETE AND TRENCH FINISH IS CONCRETE.
4. CUTS SHALL BE PARALLEL OR PERPENDICULAR TO STREET CENTERLINE, WHEN PRACTICAL.
5. IN MAJOR OR PRIME ARTERIAL STREETS, ON APPROVAL SET ACCELERATING ADMIXTURE, SUCH AS CALCIUM CHLORIDE, MAY BE USED ONLY WITH PRIOR APPROVAL OF THE ENGINEER OTHERWISE THE CONTRACTOR SHALL PROTECT THE TRENCH WITH THE APPROVAL OF THE ENGINEER.
6. 6" METAL TAPE SHALL BE INSTALLED ABOVE PIPE 4" BELOW TRENCH CAP AND 12" BELOW FINISH GRADE IN UNIMPROVED STREETS.

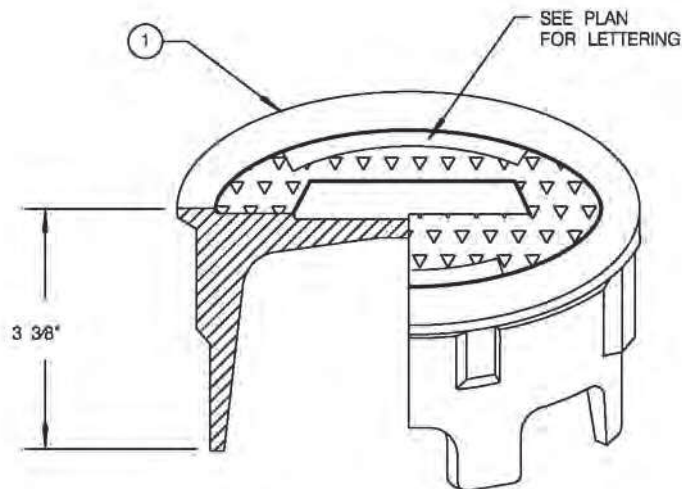
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL	KA	J. NAGELVOORT	01/12		
				NARROW TRENCH FOR 1" & 2" WATER SERVICES	<i>H. Hadali</i> 1/31/2012
					COORDINATOR R.C.E. 65271 DATE
					DRAWING
					NUMBER SDW-107



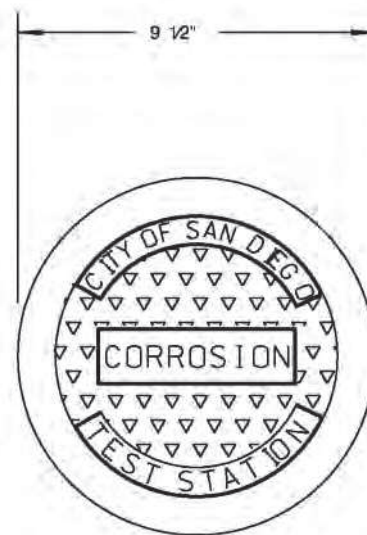
NOTES:

1. (*) INDICATES MINIMUM RELATIVE COMPACTION.
2. MINIMUM COVER: 3' FOR DISTRIBUTION MAINS; 5' FOR TRANSMISSION MAINS.
3. 6" METAL TAPE SHALL BE INSTALLED ABOVE PIPE: 4" BELOW TRENCH CAP AND 12" BELOW FINISH GRADE IN UNIMPROVED STREETS.
4. 1' SAND CUSHION OR A 6" MINIMUM SAND CUSHION WITH 1" NEOPRENE PAD SHALL BE PLACED FOR ALL CROSSINGS UTILITIES WHEN VERTICAL CLEARANCE IS 1' OR LESS. THE NEOPRENE PAD SHALL BE PLACED ON THE MOST FRAGILE UTILITY.
5. FOR MAINS LARGER THAN 16", TRENCH WIDTH SHALL BE AS SHOWN ON THE PLANS.

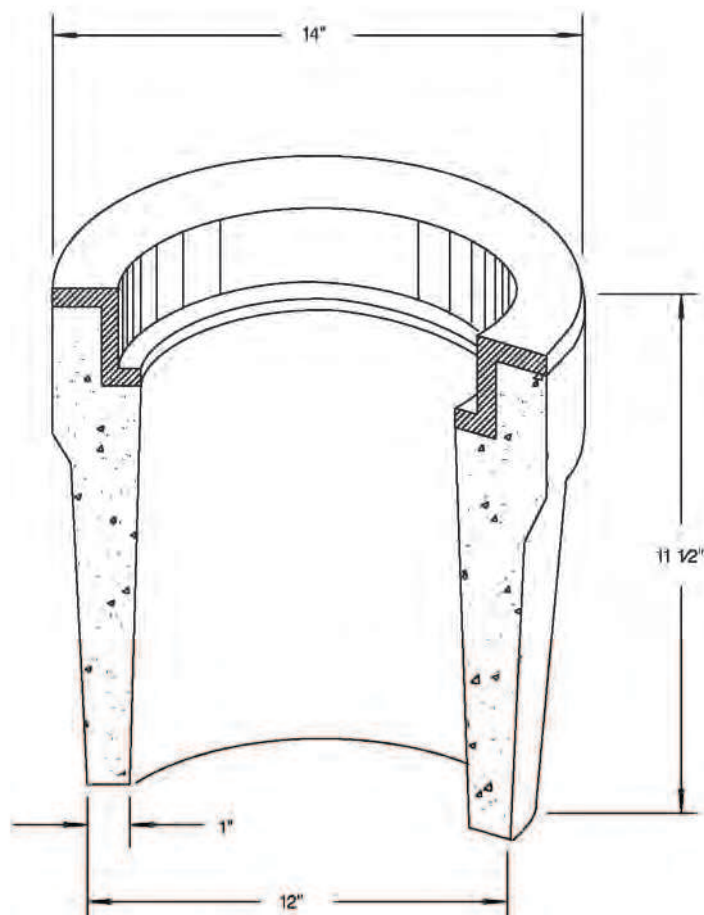
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL*	KA	J. NAGELVOORT	01/12		
				PIPE BEDDING AND TRENCH BACKFILL FOR POTABLE WATER MAINS	 COORDINATOR R.C.E. 65271 DATE 1/31/2012
					DRAWING NUMBER SDW-110



TEST BOX COVER ISOMETRIC



TEST BOX COVER PLAN



TEST BOX ISOMETRIC SECTION

NOTES:

1. COVER WEIGHT: 12 LB.
2. BODY WEIGHT: 58 LB.
3. THE COVER SHALL HAVE CASTED MARKING IN 1/2" HIGH RAISED LETTERS.

ITEM CALL OUT:

- ① COVER: ASTM A 48 CLASS 30.

REVISION	BY	APPROVED	DATE
ORIGINAL	BM	A. OSKOUI	12/03
NOTES		A. OSKOUI	12/06
UPDATED	KA	J. NAGELVOORT	01/12

CITY OF SAN DIEGO - STANDARD DRAWING

**AT - GRADE
CONCRETE TEST BOX**

RECOMMENDED BY THE CITY OF SAN DIEGO
STANDARDS COMMITTEE

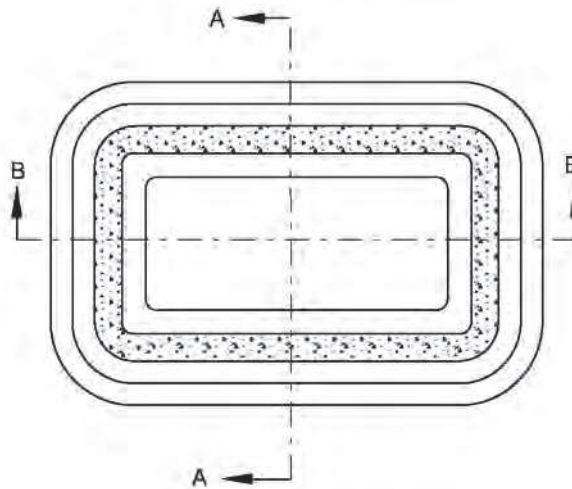
H. Haddad

1/31/2012

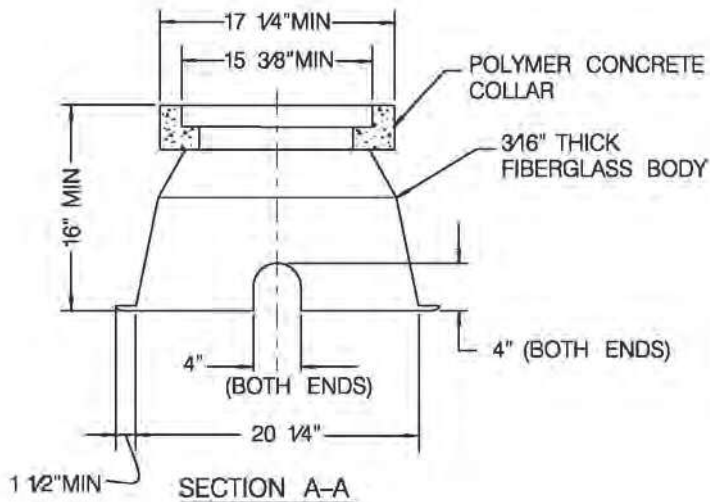
COORDINATOR R.C.E. 65271 DATE

DRAWING
NUMBER

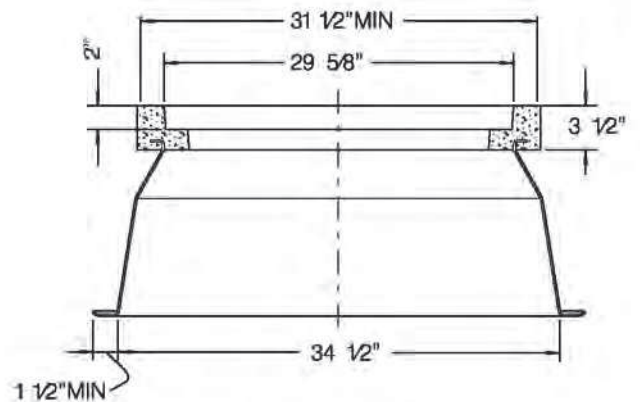
SDW-128



PLAN VIEW



SECTION A-A



SECTION B-B

NOTES

1. METER BOX COLLAR AND COVER SHALL BE OF POLYMER CONCRETE REINFORCED WITH CONTINUOUS LAYERS OF WOVEN FIBERGLASS.
2. BOX AND COVER SHALL WITHSTAND AASHTO H-20 (ASTM C857).

REVISION	BY	APPROVED	DATE
ORIGINAL	SS	A. OSKOUJ	12/03
UPDATED	KA	J. NAGELVOORT	01/12

CITY OF SAN DIEGO - STANDARD DRAWING

**POLYMER CONCRETE WATER
METER BOX FOR 2" WATER SERVICE**

RECOMMENDED BY THE CITY OF SAN DIEGO
STANDARDS COMMITTEE

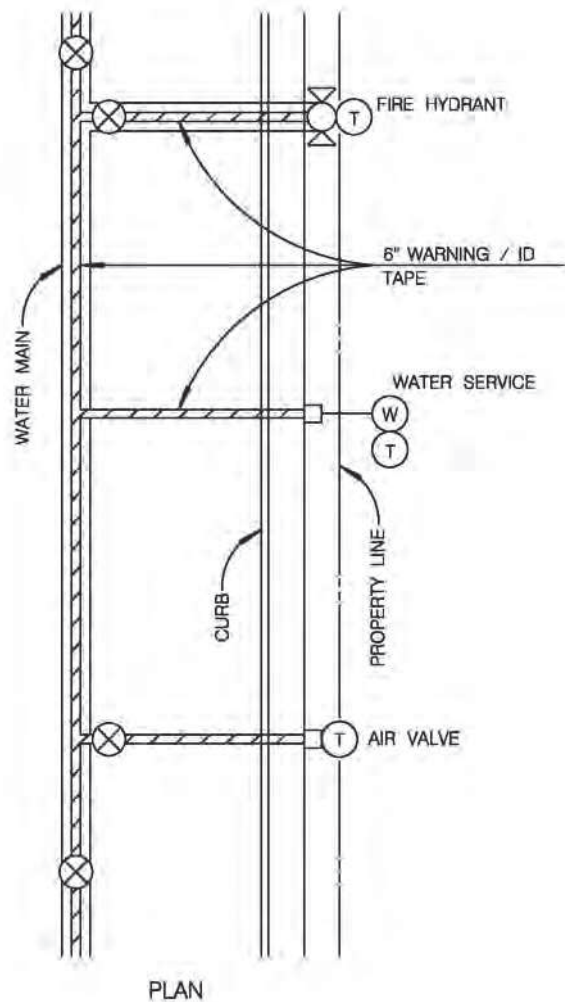
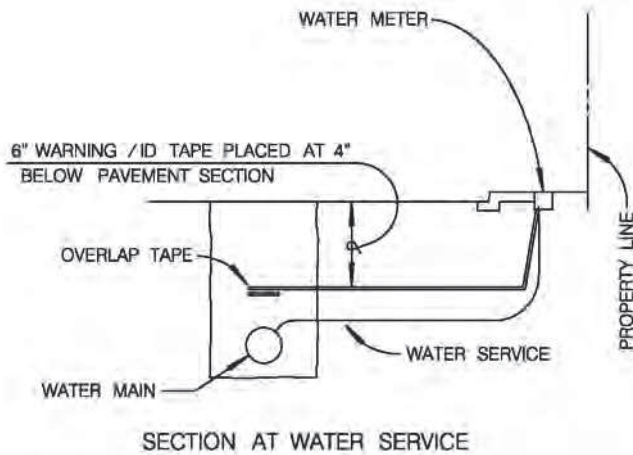
H. Hadi

1/31/2012

COORDINATOR R.C.E. 65271 DATE

DRAWING
NUMBER

SDW-135



NOTES:

- 1) 6" WARNING / IDENTIFICATION TAPE SHALL BE INSTALLED ABOVE THE PIPE AS SPECIFIED AND RUN CONTINUOUSLY ALONG THE ENTIRE LENGTH OF THE PIPE AND ALL RELATED APPURTENANCES.
- 2) ELECTRICALLY BOND SERVICE TAPE AND MAIN TAPE TOGETHER. TAPE SHALL EXTEND WITHIN METER BOX ITSELF TO ALLOW MARKOUT BY CONTINUITY TESTER.

REVISION	BY	APPROVED	DATE
ORIGINAL*	KA	J. NAGELVOORT	01/12

CITY OF SAN DIEGO - STANDARD DRAWING

WARNING / IDENTIFICATION TAPE INSTALLATION

RECOMMENDED BY THE CITY OF SAN DIEGO
STANDARDS COMMITTEE

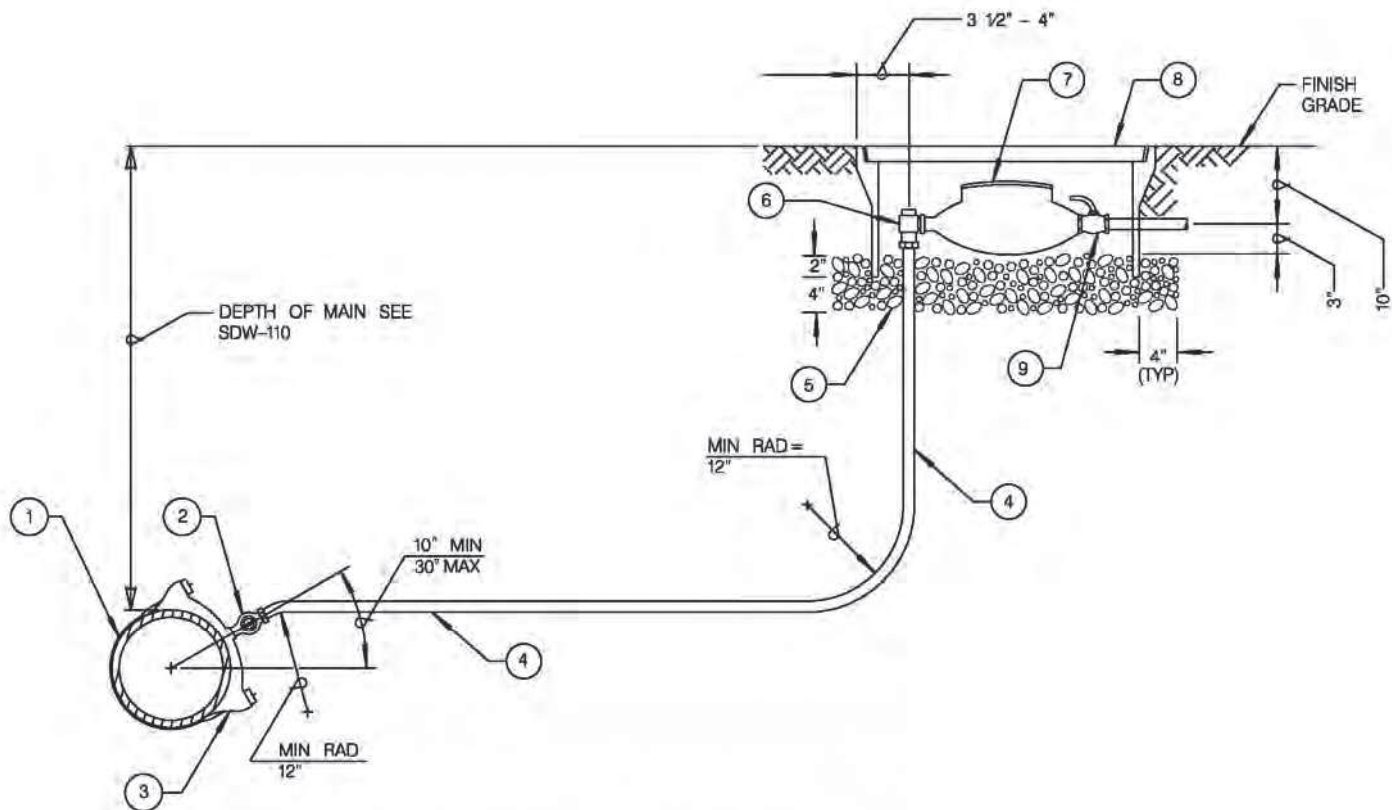
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1/31/2012

COORDINATOR R.C.E. 65271 DATE

DRAWING
NUMBER

SDW-148



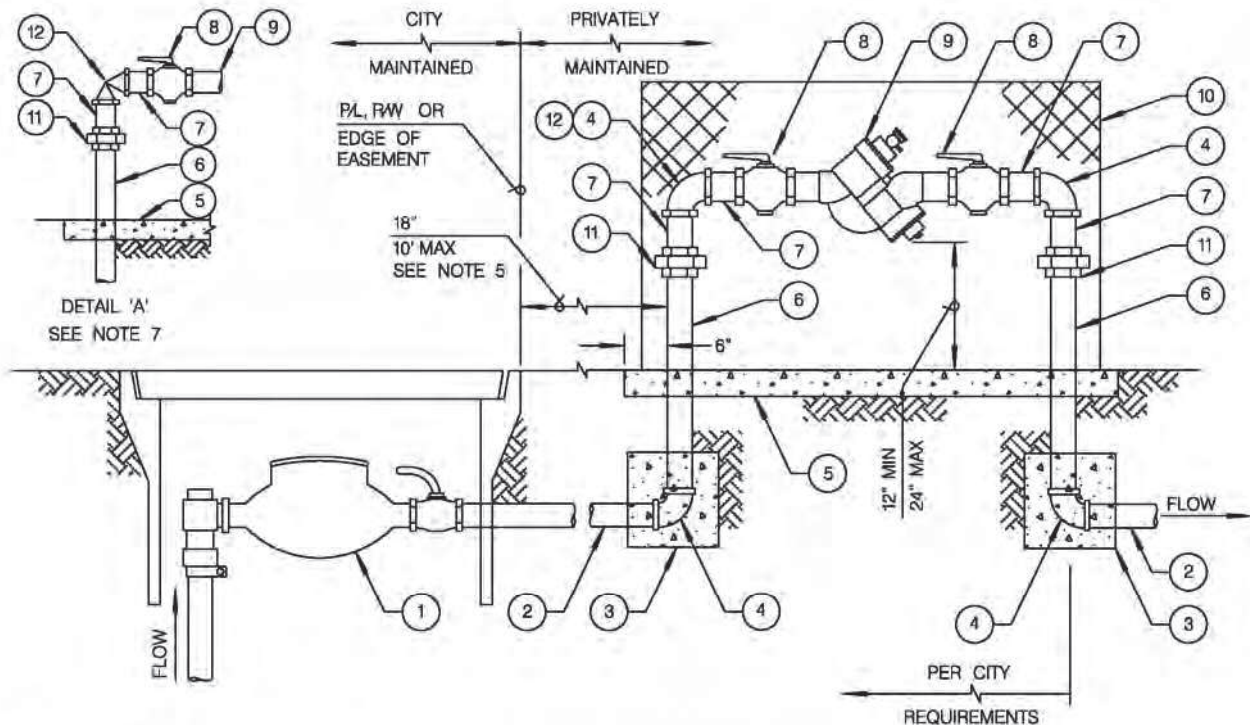
NOTES:

- 1) INSTALL CORPORATION STOP WITH KEY IN THE SIDE POSITION
- 2) SET TOP OF METER BOX FLUSH WITH SIDEWALK, CURB, OR FINISH GRADE
- 3) LOCATE METER BOX
- 4) INSTALL WARNING / IDENTIFICATION TAPE
- 5) SILVER SOLDER JOINTS SHALL NOT BE USED
- 6) ON STEEL MAINS USE WELD ON COUPLINGS, ON DUCTILE IRON MAINS USE DUCTILE IRON SERVICE SADDLES (INSULATING BUSHINGS ARE REQUIRED)
- 7) TOP TAPS NOT PERMITTED. ANY GLUE JOINT SHALL BE BEVELED PRIOR TO ASSEMBLY

W — 2" —
LEGEND ON PLANS

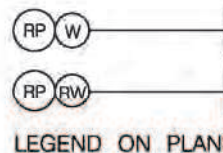
ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	WATER MAIN	6	2" BRONZE ANGLE METER STOP WITH LOCKWING
2	2" BRONZE CORPORATION STOP	7	WATER METER FURNISHED AND INSTALLED BY THE CITY
3	SIZE x 2" BRONZE SERVICE SADDLE DOUBLE STRAP	8	METER BOX WITH LID, #6: 35"x 21"
4	2" x REQUIRED LENGTH COPPER PIPE TYPE "K" SOFT/RIGID	9	CUSTOMER SHUT-OFF VALVE (LOCKABLE)
5	3/8" ROCK, 4" TO 6" DEEP		

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE
ORIGINAL*	KA	J. NAGELVOORT	01/12		
				2" WATER SERVICE INSTALLATION	<i>W. Hadli</i> 1/31/2012
					COORDINATOR R.C.E. 65271 DATE
					DRAWING NUMBER SDW-149



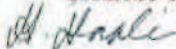
NOTES:

- 1) INSTALL WARNING/IDENTIFICATION TAPE.
- 2) LOCATE BACKFLOW PREVENTION DEVICE (BPD) IN SUCH A MANNER THAT WILL ALLOW THE DEVICE TO BE READILY ACCESSIBLE FOR INSPECTION AND REPAIR.
- 3) STRAINERS SHALL NOT BE INSTALLED PRIOR TO THE FIRST SHUT-OFF VALVE.
- 4) ALL ABOVE GROUND PIPING, UNIONS, ELBOWS, & NIPPLES SHALL BE SOLDERED OR THREADED BRASS.
- 5) INSTALL A CASING ENCASED IN CONCRETE WHEN THE DISTANCE BETWEEN THE METER BOX AND THE RISER TO THE BPD EXCEEDS 18" (450mm). NO CONNECTIONS OF ANY KIND PERMITTED IN THIS AREA.
- 6) INSTALL AN ANGLE PRESSURE REDUCING VALVE IN LIEU OF THE FIRST 90° ELL WHEN SYSTEM PRESSURE EXCEEDS 150 PSI PER SPECIFICATIONS.
- 7) TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH SPECIFICATIONS PRIOR TO ACCEPTANCE.
- 8) BACKFLOW PREVENTION DEVICE & APPURTENANCES INSTALLED FOR THE USE OF RECYCLED WATER SHALL BE IDENTIFIED AS DESCRIBED IN SPECIFICATIONS.
- 9) LOCATION MUST BE APPROVED BY UTILITIES DEPARTMENT CUSTOMER SUPPORT DIVISION, METER SERVICES AND SHOWN ON THE PLANS.
- 10) ALL RISER ELBOWS AND UNDERGROUND PIPING SHALL BE TYPE (L) OR (M) COPPER, BRASS OR PUD APPROVED MATERIAL LIST BRASS UNIONS ACCEPTABLE.



LEGEND ON PLANS

ITEM NO	SIZE AND DESCRIPTION	ITEM NO	SIZE AND DESCRIPTION
1	METER BOX & METER ASSEMBLY SEE SDW-149 & SDW-150	8	BALL VALVE "SHUT-OFF"
2	SCH 80 PVC, BRASS OR COPPER PIPE	9	REDUCED PRESSURE BACKFLOW DEVICE
3	CONCRETE THRUST BLOCK SEE SDW-151	10	ENCLOSURE (OPTIONAL)
4	90° ELL SEE NOTES 4 & 6	11	UNION SEE NOTE 4
5	CONCRETE SLAB, MINIMUM 4" THICK x 18" WIDE	12	ANGLE PRV SEE NOTES 4 & 6
6	BRASS OR COPPER PIPE SEE NOTE 4		
7	3" LONG NIPPLE SEE NOTE 4		

REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO STANDARDS COMMITTEE	
ORIGINAL*	KA	J. NAGELVOORT	01/12			
				3/4" THRU 2" REDUCED PRESSURE BACKFLOW PREVENTION DEVICE	 1/31/2012	
					COORDINATOR R.C.E. 65271 DATE	
					DRAWING	SDW-155
					NUMBER	